



October 12, 2006

Mine Safety & Health Administration
Ms. Patricia W. Silvey, Acting Director
Office of Standards, Regulations, & Variances
1100 Wilson Boulevard, Room 2350
Arlington, Virginia 22209-3939

Re: PPL P06-V-9 – Emergency Response Plan, Post Accident Breathable Air

Dear Ms. Silvey:

These comments are submitted by Arch Coal, Inc. (Arch) in response to a “request for information” (RFI) announced by MSHA in the Federal Register on August 30, 2006. The RFI seeks comments from interested parties on Program Policy Letter P06-V-9; Section 2 of the MINER Act as it relates to the Emergency Response Plan (ERP) provision concerning Post-Accident Breathable Air (Breathable Air).

Arch is the second largest coal producer in the United States. Our corporate office is located in St. Louis, Missouri. Our subsidiary companies employ over 4,000 individuals and operate mines in Colorado, Kentucky, Utah, Virginia, West Virginia, and Wyoming.

Arch fully supports the intended purpose of the MINER Act, as well as the efforts by MSHA to implement this legislation. We share a common desire with MSHA to improve health and safety conditions for miners. We also agree that the tragic events that occurred earlier this year in Kentucky and West Virginia demonstrate a compelling need to improve the ability of miners to escape and/or be rescued during a mine-wide emergency.

Operator Responsibility

Arch firmly believes that all mines should develop and implement a comprehensive risk-based approach to emergency preparedness. An approach that focuses primarily on prevention, but that also provides for detailed contingencies in the event of a mine-wide emergency. We feel strongly that self-escape and aided-rescue plans should be mine-specific in design. They should be comprehensive in nature and plan for the various emergency scenarios that miners might encounter. Arch also feels strongly that it is the responsibility of each operator to provide appropriate escape/rescue training for miners. In addition, all operators should provide miners with the best commercially available technology to increase the likelihood of a successful escape (or rescue) if a mine-wide emergency occurs.

Escape is the Primary Objective

When a mine-wide emergency occurs underground, the primary objective is for miners to evacuate the mine. Barricading has been, and must continue to be, a last resort. Section 2 of the MINER Act contains provisions requiring operators to provide emergency air for both self-escape and the maintenance of trapped miners. Operators are required to provide breathable air for safe evacuation, as well as emergency air sufficient to maintain trapped miners for a sustained period of time. In interpreting these two provisions, MSHA must exercise caution. The Agency needs to interpret the “breathable air” provision in a manner that ensures all miners clearly understand that their primary mission during a mine emergency is self-escape.

Lack of Guidance

In our opinion, Congress did not clearly define their intent when they drafted the “post-accident breathable air” (breathable air) provision. The Congressional response to the Sago and Alma tragedies was swift. They passed the MINER Act with a minimum of debate. There is an absence of legislative history to explain what they meant by the phrase “emergency supplies of breathable air for individuals trapped underground sufficient to maintain such individuals for a sustained period of time.” If their intent had been clear, MSHA would not have issued this RFI.

When Congress drafted the “breathable air” provision it’s unclear as to what type of oxygen sources they were referring. Were they contemplating the use of self-contained self-rescuers (SCSR), refuge chambers, safe rooms, compressed air systems, bottled oxygen, or other types of technology? In certain applications, each of these various oxygen sources might be a viable alternative. The best emergency oxygen source alternative for a particular mine must be a site-specific decision. A decision that is based on the characteristics of the mine and the specific risks they are attempting to mitigate.

What did Congress mean by the phrase “a sustained period of time”? How much emergency air is sufficient to sustain trapped miners? The answer to this question is also site-specific. It depends on the size of the mine, the number of miners, and what specific disaster scenarios are identified by the mine’s risk assessment.

In attempting to answer this question, Arch would encourage MSHA to conduct a comprehensive critical incident analysis. The Agency should analyze the historical underground disasters that have occurred with a focus on those involving survivors. MSHA should try to determine how much time it took for rescue personnel to reach the trapped miners. This approach would provide some general guidance on the period of time required to sustain miners following an emergency. The result of this analysis can serve as general guidance as to how much “breathable air” operators should provide. The resulting guidance should be considered within the context of each particular mine’s characteristics and risks.

When Congress crafted the “breathable air” provision, did they envision the use of emergency shelters or refuge chambers as a means of compliance? If so, what specifications should be required for an emergency shelter or refuge chamber? What risk scenarios should they be designed to mitigate? Are shelters/chambers feasible in all applications?

At the present time, neither the Industry nor MSHA knows the answer to these questions. The complexity of this issue requires a comprehensive analysis and a scientific solution. If we fail to answer these questions in the proper manner, we're exposing miners to unnecessary risks.

Conflicting Objectives

Section 2 of the MINER Act appears to contain conflicting objectives. It requires mine operators to provide emergency supplies of breathable air capable of maintaining trapped miners for a "sustained period of time." Exactly what this phrase means is not defined, but it appears to mean that operators should provide a supply of breathable air for trapped miners in addition to the SCSR units required for escape. While there are many alternative methods of supplying miners with emergency oxygen, the most practical method seems to be some type of emergency shelter or refuge chamber.

Section 13 of the MINER Act also requires the National Institute for Occupational Safety and Health (NIOSH) to "conduct research, including field tests, concerning the utility, practicality, survivability and cost of various refuge alternatives in an underground coal mine environment..." NIOSH is required to complete its report on refuge alternatives by December 15, 2007. The MINER Act requires MSHA to respond to the NIOSH report and initiate possible regulatory action by June 15, 2008.

In our view, it makes good common sense to withhold a final determination on what Congress intended by the "breathable air" provision until the NIOSH/MSHA evaluation of the refuge alternative is complete. MSHA should not mandate the use of refuge chambers (or similar devices) in Emergency Response Plans (ERP) until this process is complete. Decisions of this magnitude should be based on the type of scientific analysis the NIOSH study is intended to provide. MSHA should not rush to judgment.

As an alternative, we encourage the Agency to focus its immediate efforts on the aggressive development and approval of the next generation of SCSR units. We need SCSR technology that is portable and rechargeable. We need SCSR units that eliminate reliance on a mouthpiece and that facilitate the ability of miners to communicate and consume nourishment.

The absence of clear Congressional guidance, coupled with the requirement for NIOSH to conduct a comprehensive study of refuge alternative, dictates that MSHA should not rush to judgment. The Agency should wait for the completion of the NIOSH refuge alternative study.

West Virginia Regulations

MSHA also must exercise caution to avoid complicating efforts to address this issue at the state level. As MSHA is aware, West Virginia has enacted a regulation requiring refuge chambers on each section of the underground mines in that state. They have established a standard for approving refuge chambers. The standard outlines criteria for the amount of breathable air the chamber should supply (48 hours), the quality of the shelter's internal atmosphere, the shelter's location, and its structural integrity. The regulation also contains specifications for food, water, maintenance, and other related requirements.

A Joint Task Force has been established in West Virginia to specifically analyze the “breathable air” issue. They concluded a pre-fabricated shelter concept (with a shared breathable air source, scrubbing system, etc.) may be the best short-term option to supply “post-accident breathable air” for miners. In their view, a portable structure is the most practical option for active underground mines that are continually advancing.

The Task Force and the West Virginia Office of Miners Health Safety & Training are still in the process of evaluating various emergency shelter options. At this point, they have not approved a design as suitable. They have recognized that this is a complex issue and that the development of improved, portable, and rechargeable SCSR units is a more efficient way to deliver breathable air to underground miners in the short term.

We encourage MSHA to monitor and learn from the West Virginia Task Force. The Agency should also consider the steps already taken by West Virginia when they develop their final “breathable air” requirements. It’s our hope that the actions taken by MSHA complement rather than complicate the efforts of safety professionals in West Virginia to improve the Industry’s ability to maintain trapped miners following an emergency.

Risk-Based Approach

As mentioned previously, Arch maintains that good decisions related to the issue of maintaining trapped miners must be made on a mine-specific basis. The location of food, water, post-accident “breathable air”, and other emergency supplies, must be predicated upon a risk-based, site-specific analysis of the conditions presented at each mine. This is particularly necessary given the variety of mine sizes, seam heights, geological conditions, and other regional characteristics present throughout the underground coal industry. In our opinion, each mine should be required to conduct a mine-specific risk assessment. The results of such an assessment should be used to determine the best methods of maintaining trapped miners at each particular mine.

Arch believes that a risk-based mine-specific analysis of the type described above can help to identify pre-determined assembly points for trapped miners. Emergency staging areas for miners can be established at an appropriate distance near working sections. The staging area should be equipped with food, water, barricade kits, emergency supplies and equipment. It can also serve as the location for an additional source of “post-accident breathable air.”

The amount of “breathable air” maintained at the staging area should be directly proportionate to the number of miners most likely to be in that area. The results of the mine’s site-specific risk analysis should also be a factor of consideration. In many cases, it may be appropriate to follow the guidance provided by West Virginia and provide up to 48 hours of breathable air for the miners expected to be in that area. This 48-hour period of time, however, should serve only as guidance. It should be recognized that one-size doesn’t fit all mines. The Agency’s final regulation should serve as a guideline. It should not be a uniform requirement applicable to all mines. Based upon a particular mine’s risk analysis, 48 hours of breathable air may not be necessary, particularly in the case of some small mines.

New Technology

Arch feels very strongly that any final “breathable air” requirement should be performance based. It should encourage the adoption of new technology with the potential to increase the likelihood of miners successfully escaping or being rescued following a mine emergency. MSHA should exercise caution. The Agency should avoid promulgating a regulation that impedes the development of new refuge and emergency air alternatives.

It’s our belief that the recently enacted SCSR regulation requiring operators to purchase thousands of SCSR units, will effectively delay the development of the next generation of SCSR technology. We don’t want to see research into new refuge alternatives and “breathable air” technology impeded in the same manner.

In the short term, some operators may choose to adopt an existing refuge chamber alternative. Those decisions should be consistent with the mine’s risk analysis. Other “breathable air” options should not be foreclosed by an inflexible one-size-fits-all regulation.

Closing

Arch appreciates the opportunity to comment on this important issue. As mentioned previously, we share your desire to identify new methods to improve the ability of miners to successfully escape or be rescued in the event of an emergency. We urge MSHA to adopt a scientific approach to solving the complex issue of “post accident breathable air.” We feel that the MINER Act provides a vehicle for such an approach by requiring that NIOSH conduct a study of refuge alternatives. We encourage MSHA to take advantage of this opportunity to resolve this issue through scientific inquiry. We also want to re-emphasize our belief that the final answers to the questions surrounding the breathable air issue must be mine-specific. In addition, they must factor each mine’s unique risks into the equation.

Sincerely,



Anthony S. Bumbico
Vice President of Safety
Arch Coal, Inc.